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ABSTRACT

This study examined the relation of inept parental discipline, poor parental monitoring, and children's coercive behavior to children's antisocial behavior. Subjects were 78 girls and 94 boys of kindergarten age and their two-parent families. Parental discipline and child behavior were measured by means of laboratory and phone interviews of parents. Results indicated that the strongest predictor of children's antisocial behavior was inept parental discipline. There were no differences between children on the basis of gender. Mothers reacted more negatively to daughters than did fathers; fathers reacted more negatively to sons than did mothers. The only other difference noted between mothers and fathers was that mothers spent more time with their children. Six references are cited. (BC)

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The Coercion Model of Antisocial Behavior: Generalization to 5-year old Children and their Parents

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Introduction

Patterson (1982) postulated that coercive family processes provide "basic training" for child antisocial behavior. Specifically, inept discipline, poor monitoring and child coercive behavior are hypothesized to be the important factors in the development of child antisocial behavior. Monitoring is hypothesized to be especially important as children reach late childhood and adolescence (cf. Patterson, Reid, & Dishion, in press). Previous Oregon Social Learning Center (OSLC) studies employing structural equation modeling have provided support for the basic training component of Coercion Theory (Patterson, Dishion & Bank, 1984; Patterson & Bank, 1986; Baldwin & Skinner, 1989). Although basic training is presumed to begin during early childhood, these studies investigated the relationships between the constructs in samples of mixed ages (i.e., ages 6 to 16) and in a sample of older elementary school children. Further, previous samples were comprised of boys and their single and two-parent families or boys and their single moms. The present research sought to extend the basic training model to younger children by studying 5 year-old boys and girls with family structure limited to two-parent families. Confirmatory factor analytic techniques were used.

Method

Subjects

Subjects were 94 boys and 78 girls of kindergarten age (92% of the children were 5 years old) and their two-parent families recruited through parent groups and newspaper advertising from a medium-sized metropolitan area. The ethnic background of the children and their parents was representative of the area (i.e., 94% of the sample was Caucasian). The mean age of mothers was 32.2 years (SD=4.5), and for fathers, 34.8 years (SD=6.4). The parents had been married or living together and average of 9.3 years (SD=4.4). The majority of parents were in their first marriage (82%). The average family had 2.4 children (SD=1.1) and had a median gross income of $18,000 to $24,000, placing them below the local median for a family of four ($28,400) in 1987.

Procedure

Each parent participated in a structured interview in the laboratory, completed a packet of questionnaires, and responded to three phone interviews. Additionally, each family (i.e., parents, target child, and siblings) was observed interacting during four one-hour home observations.

Measures

The reliability of all measures was acceptable (Cronbach's alpha for self-report measures ranged from .7 to .8; Cohen's kappas for the observational coding ranged from .6 to .8).

Child Antisocial Construct

Child Behavior Checklist -- Parent Version (Achenbach & Edelbrock, 1983): ratings of the frequencies of sixteen covert and overt antisocial behavior items (e.g., "argued", "temper tantrums", "disobedient", "stealing") were summed.

Parent Phone Interview (Kavanagh & Fagot, 1986): parents reported whether their child had performed a variety of negative and positive behaviors during the past 24 hours . Total negative behavior scores (e.g., "talking back", "breaking rules", "hitting") were averaged across the three calls.

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Coercive Child and Inept Discipline Constructs

Home Observational Coding (Fagot Interactive Behavior Code; Fagot, 1983): coding was done in the home by professional observers using an automated real-time collection device. The child's activity and interaction, the recipient of the interaction, the family member that reacted to the child, and the type of reaction were continuously coded. The baserate of parent negative behavior reactions to the child (i.e, "criticize and verbally punish", "physical restraint or aggression", "crying", "whining") and the baserate of child negative behavior (i.e., "physical aggression", "verbal negative", "ignore", "take or try to take object", "demand attention") were calculated.

Observers Impressions Rating Form (Reid, 1978): after each home observation, observers globally rated the behaviors of the parents and child during the observation. Negative discipline items (e.g., "parent used nattering to get compliance", "parent used strict discipline", "parent was erratic, inconsistent") were summed to form the parent scores. One child item (i.e., "child was angry and irritable") comprised the coercive child score.

Monitoring

Parent Interview: from an extensive set of questions about the parent, child, and family, one item directly concerned the behavior of monitoring: "how often do you check on your child when out of sight".

Parent Interviewer Impressions: after each interview, the interviewer rated how well the parent monitored their child.

Hours Spent with Child: during the phone interviews, each parent was asked how much time they had spent with their child during the past 24 hours (e.g., 1= "1 to 2 hours", 2= "3 to 4 hours", etc.). The mean time spent with the child across the three 24 hour periods was calculated.

Analyses

All available measures (the "indicators" of the constructs in the model) that had been used in previous OSLC studies to define the constructs of child antisocial behavior, child coercive behavior, inept discipline, and monitoring were selected for inclusion in a confirmatory factor analysis. A maximum likelihood confirmatory factor analysis was conducted using Joreskog and Sorbom's (1989) LISREL VII program to test whether the specified model fit the data. Differences between mean levels of the indicators for boys and girls and mothers and fathers were also tested.

Results

Confirmatory Factor Analysis

Table 1 displays the correlation matrix, means, and standard deviations for the indicators described above. Convergent validity for the monitoring construct was poor, and the monitoring indicators were dropped from the final analysis. A confirmatory analysis was run specifying three constructs: child antisocial, coercive child, and inept discipline. The replicated basic training model is presented in Figure 1. The model fit the data as measured by: (1) a nonsignificant chi-square, (2) goodness of fit indices greater than .9, and (3) significant correlations between the indicators and their specified constructs. Further, significant correlations were found between the child coercive and inept discipline constructs, and between the inept discipline and child antisocial constructs.

Gender Differences

Controlling for family-wise error rates, no significant differences were found between boys and girls on mean levels of (1) the observational or the parent report measures of child negative behavior, or (2) the measures of parent behavior (see Table 2). Fathers and mothers of boys and girls were compared using paired t-tests (see Table 3). Only one significant difference was found: mothers spent more time with their children than fathers did.

Discussion

The results are consistent with previous findings concerning the basic training process. As in previous studies, the strongest predictor of child antisocial behavior was the observed inept discipline of the parents rather than the observed negative behavior of the child.

The monitoring indicators did not form a unidimensional construct. This may be because, as predicted, parent monitoring is not as important with early elementary school children, or because of inadequate measurement of the type of monitoring necessary by parents of 5 year old children. We have refined our measurement of monitoring in families of young children and are currently collecting further data on this construct (Fagot, 1990).

Some differences between boys and girls and between mothers and fathers on rates of negative behaviors were suggested, such as same-sex patterns (more mother negative than father negative reactions to girls, more father negative reactions to boys) that have implications for child socialization but need replication before further theorizing.

Mothers did spend significantly more time with their children. The increased opportunity that mothers had to observe their children and the specificity of the phone interview (discrete behaviors during a limited amount of time) may explain why mothers rated their children as more antisocial on the phone interview than fathers.

It is suggested that further research on the basic training model with younger children employ a broader based assessment of monitoring and child antisocial behavior coupled with a "coercive family process" construct defined by sequential analytic variables. We are currently developing such a construct using Wampold's (1989) bidirectional kappa, a direct measure of the strength of the sequential connection between behaviors (e.g., the joint test of parent negative↔child negative), as well as Wampold's unidirectional kappa, akin to the more commonly used unidirectional binomial z-score. Unlike the binomial z-score, however, Wampold's kappa is independent of the length of the observational sequence.

Selected References

Baldwin, D. V., & Skinner, M. L. (1989). Structural model for antisocial behavior: Generalization to single-mother families. *Developmental Psychology, 25*, 45-50.

Patterson, G. R. (1982). *Coercive family process*. Eugene, OR: Castalia.

Patterson, G. R., Dishion, T. J., & Bank, L. (1984). Family interaction: A process model of deviancy training. *Aggressive Behavior, 10*, 253-267.

Patterson, G. R., & Bank, L. (1986). Bootstrapping your way in the nomological thicket. *Behavioral Assessment, 8*, 49-73.

Patterson, G. R., Reid, J. B., & Dishion, T. J. (in press). *A social learning approach: 4. Antisocial boys*. Eugene, OR: Castalia.

Wampold, B. E. (1989). Kappa as a measure of pattern in sequential data. *Quality and Quantity, 23*, 171-187.

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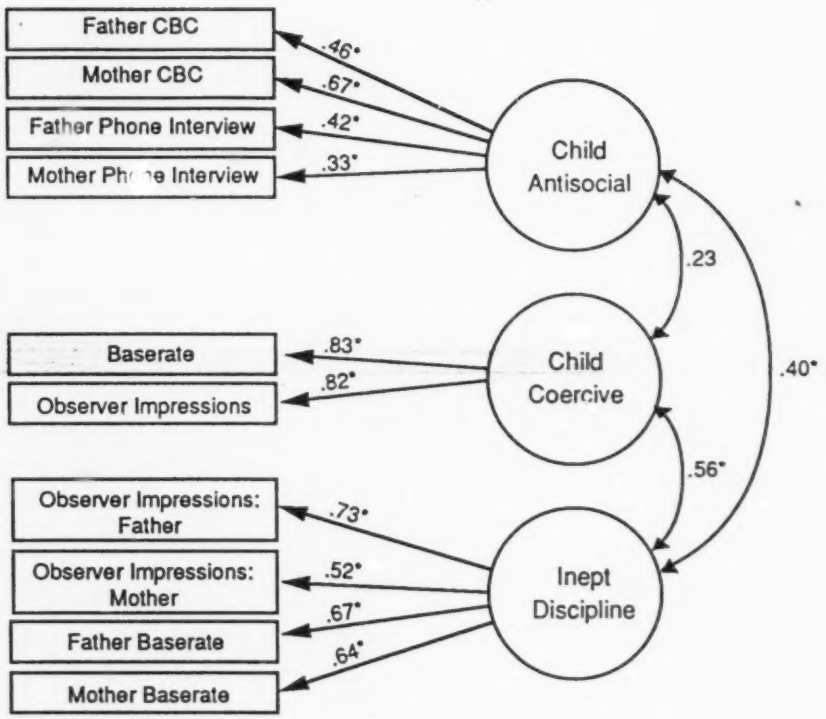
Table 1
Means, Standard Deviations, and Correlations for the Coercion Model Indicators

Child Antisocial																
Dad Child Behavior CL	1.00															
Mom Child Behavior CL	.33	1.00														
Dad Phone Interview	.23	.23	1.00													
Mom Phone Interview	.04	.26	.23	1.00												
Coercive Child																
Obs Baserate	.04	.15	.14	.08	1.00											
Obs Impressions	.01	.13	.09	.08	.68	1.00										
Inept Discipline																
Dad Obs Baserate	.11	.28	.14	.08	.35	.31	1.00									
Mom Obs Baserate	.18	.17	.14	.02	.25	.25	.35	1.00								
Obs Impressions Dad	.16	.11	.06	.02	.27	.34	.21	.30	1.00							
Obs Impressions Mom	.14	.02	.11	.04	.31	.30	.15	.44	.71	1.00						
Monitoring																
Int Impressions Dad	-.11	-.08	.10	-.03	.05	.05	.09	.09	-.00	-.03	1.00					
Int Impressions Mom	-.05	-.11	.07	-.10	.05	.06	.09	.09	.08	.11	.69	1.00				
Dad Interview	.02	.16	.08	.08	.01	.03	.13	.14	.06	.02	.23	.03	1.00			
Mom Interview	.02	-.07	-.00	-.06	.01	.03	-.02	.09	.03	-.05	.24	.16	.36	1.00		
Dad Hours with Child	-.07	-.02	.11	-.02	.02	-.09	-.11	-.06	.03	.03	.14	.01	.11	.06	1.00	
Mom Hours with Child	.06	.01	-.04	-.04	-.06	-.02	-.09	.05	.00	.03	-.04	.02	.16	.17	.05	1.00
Mean	3.52	3.49	3.09	3.55	.12	.82	1.28	1.18	.02	.02	3.46	3.61	1.69	1.89	2.94	4.54
SD	3.17	3.12	1.56	1.79	.18	.89	1.77	1.84	.02	.03	.88	.82	.72	.66	1.46	1.43

Note. N=148 boys and girls and their mothers and fathers. Listwise deletion. Correlations greater than .15 significant at $p<.05$.

Figure 1
Confirmatory Factor Analysis of Child Antisocial, Coercive Child, and Inept Discipline Constructs of Patterson's (1982) Coercion Model: 5-year old Boys and Girls and Their Fathers and Mothers (n=148 families)



$\chi^2_{(31)} = 40.24$

$p = .12$

GFI = .95

AGFI = .91

RMR = .05

*$p < .05$

Table 3
Coercion Model Indicators by Sex of Child

	Boys	Girls	t
Child Antisocial			
Dad Child Behavior Checklist	3.88	3.22	1.18
	(4.37)	(2.71)	
Mom Child Behavior Checklist	3.84	2.89	2.01*
	(3.23)	(2.79)	
Dad Phone Interview	3.16	2.89	1.15
	(1.68)	(1.45)	
Mom Phone Interview	3.80	3.36	1.58
	(1.86)	(1.71)	
Child Coercive			
Home Observation Baserate	.122	.113	.58
	(.116)	(.109)	
Observers Impressions	.83	.77	.39
	(.89)	(.97)	
Inept Discipline			
Dad Baserate	.021	.011	3.20**
	(.025)	(.014)	
Mom Baserate	.023	.018	1.07
	(.032)	(.032)	
Observers Impressions -- Dad	1.63	1.01	2.21*
	(2.21)	(1.43)	
Observers Impressions -- Mom	1.49	.96	1.91
	(2.40)	(1.12)	
Monitoring			
Interviewer's Impressions -- Dad	3.45	3.40	.34
	(0.93)	(0.87)	
Interviewer's Impressions -- Mom	3.69	3.47	1.67
	(0.83)	(0.82)	
Dad Interview	1.73	1.73	.03
	(0.75)	(0.73)	
Mom Interview	1.89	1.91	-.16
	(0.69)	(0.68)	
Dad Hours Spent with Child	3.05	2.89	.71
	(1.50)	(1.44)	
Mom Hours Spent with Child	4.42	4.74	-1.39
	(1.40)	(1.48)	

Note. N=85 to 94 boys, N=72 to 78 girls. *p<,05. **p<.01. ***p<.001. Means with standard deviations in parentheses. t-tests for independent samples with pairwise deletion.

Table 4
Coercion Model Indicators by Parent and Sex of Child

	Boy			Girl		
	Dad	Mom	t	Dad	Mom	t
Child Antisocial Behavior						
Child Behavior Checklist	3.93	3.83	.19	3.25	2.87	1.81
	(4.38)	(3.21)		(2.72)	(2.81)	
Parent Phone Interview	3.16	3.80	2.78**	2.88	3.36	2.11*
	(1.68)	(1.86)		(1.45)	(1.71)	
Inept Discipline						
Home Observation Baserate	.021	.023	-.70	.011	.018	-2.06*
	(.025)	(.032)		(.014)	(.032)	
Observers Impressions	1.63	1.49	.93	1.01	.96	.32
	(2.21)	(2.40)		(1.43)	(1.13)	
Monitoring						
Interviewer's Impressions	3.47	3.68	-3.01**	3.39	3.47	-1.03
	(0.92)	(0.84)		(0.88)	(0.82)	
Parent Interview	1.73	1.89	-2.14*	1.73	1.89	-1.54
	(0.75)	(0.69)		(0.73)	(0.64)	
Hours Spent with Child	3.05	4.42	-6.43***	2.89	4.74	-8.28***
	(1.50)	(1.40)		(1.44)	(1.48)	

Note. N=85 to 94 boys, N=72 to 78 girls. *p<.05. **p<.01. ***p<.001. Means with standard deviations in parentheses. Paired t-tests with pairwise deletion.